PROJECT

MEDIATOR

MEdiating between Driver and Intelligent Automated Transport systems on Our Roads

Funding: European (Horizon 2020)

Duration: May 2019 - Apr 2023

Status: Ongoing

Total project cost: €6,461,615

EU contribution: €6,461,615

CORDIS RCN : 221844

Objectives:

Problem: Automated transport technology is developing rapidly for all transport modes, with huge safety potential. However, the transition to full automation brings new risks, such as misuse, overreliance, reduced situational awareness and mode confusion. The driving task changes to a more supervisory role, reducing the task load and potentially leading to degraded performance. Similarly, the automated system may not (yet) function in all situations; it must intelligently assess the strengths and weaknesses of both driver and system and select the best control mode according to the context.

Solution: MEDIATOR proposes an intelligent ‘mediating’ support system for road transport, enabling safe, real-time switching between human driver and system. It will constantly evaluate driving context, driver state and vehicle automation status, personalising its technology to the driver’s general competence.

Approach: MEDIATOR pursues a paradigm shift away from a view that prioritises either the driver or the automation, instead integrating the best of both. It will use state-of-the-art knowledge, including that from other transport modes, and develop new knowledge about human behaviour and human-machine interaction. It will apply the latest artificial intelligence technology to evaluate driver state, automation status and driving context in real time. It will produce several prototypes in the lab and in actual vehicles, for evaluation in simulation, simulator and on-road studies—as well as several tools for further exploitation.

Impact: MEDIATOR will optimise the safety potential of vehicle automation, especially during the transition to full automation. It will reduce future as well as current risks (such as inattention or fatigue). MEDIATOR will facilitate market exploitation by actively involving the automotive industry during the development process. Further, the involvement of experts from other transport modes will maximise the transfer of knowledge to these domains.

Parent Programmes:

H2020-EU.3.4. - Horizon 2020: Smart, Green and Integrated Transport

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Other programmes: MG-2-1-2018 Human Factors in Transport Safety

Lead Organisation:

Stichting Wetenschappelijk Onderzoek Verkeersveiligheid

Address:
Bezuidenhoutseweg 62
2594 AW Den Haag
Netherlands

EU Contribution: €1,262,875

Partner Organisations:

Autoliv Development Ab

Address:
Wallentinsvagen 22
447 83 Vargarda
Sweden

EU Contribution: €561,125

Zenuity Ab

Address:
LINDHOLMSPIREN 2
41756 GOTHENBURG
Sweden

EU Contribution: €691,750

Stichting Centrum Voor De Ontwikkeling Van Transport En Logistiek In Europa

Address:
Van Nelleweg 1
3044 BC Rotterdam
Netherlands

Organisation Website:
http://www.cetle.org

EU Contribution: €165,875

Altran Italia S.p.a

Address:
VIA TIBURTINA 1232
00131 ROMA
Italy

EU Contribution: €186,250

Kongsberg Maritime As

Address:
Strandpromenaden 50
3183 Horten
Norway

EU Contribution: €187,250

Ben-Gurion University Of The Negev

Address:
Office Of The President - Main Campus
Beer Sheva 84105
Israel

Organisation Website:
http://www.bgu.ac.il

EU Contribution: €423,625

Statens Geotekniska Institut

Address:
Olaus Magnus Vag 35
58193 Linkoping
Sweden

Organisation Website:
http://www.vti.se

EU Contribution: €446,325

Technische Universitaet Chemnitz

Address:
STRASSE DER NATIONEN 62
09111 CHEMNITZ
Germany

Organisation Website:
http://www.tu-chemnitz.de

EU Contribution: €713,200

Fiat Auto S.p.a.

Address:
Corso G. Agnelli 200
10100 TORINO
Italy

Organisation Website:
http://www.fiat.com

EU Contribution: €574,500

Cygnify Bv

Address:
NARCISTRAAT 54
2252 XG VOORSCHOTEN
Netherlands

EU Contribution: €518,840

Technische Universiteit Delft

Address:
STEVINWEG 1
2628 CN DELFT
Netherlands

Organisation Website:
http://www.tudelft.nl

EU Contribution: €730,000

Technologies:

Safety systems
Technologies to improve road safety

Development phase: Validation

STRIA Roadmaps: Cooperative, connected and automated transport

Transport mode: Road transport

Transport sectors: Passenger transport, Freight transport

Transport policies: Safety/Security, Digitalisation

Geo-spatial type: Other